SAFETY AS A PRIMARY PRODUCTIVITY TOOL

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May 8, 2002

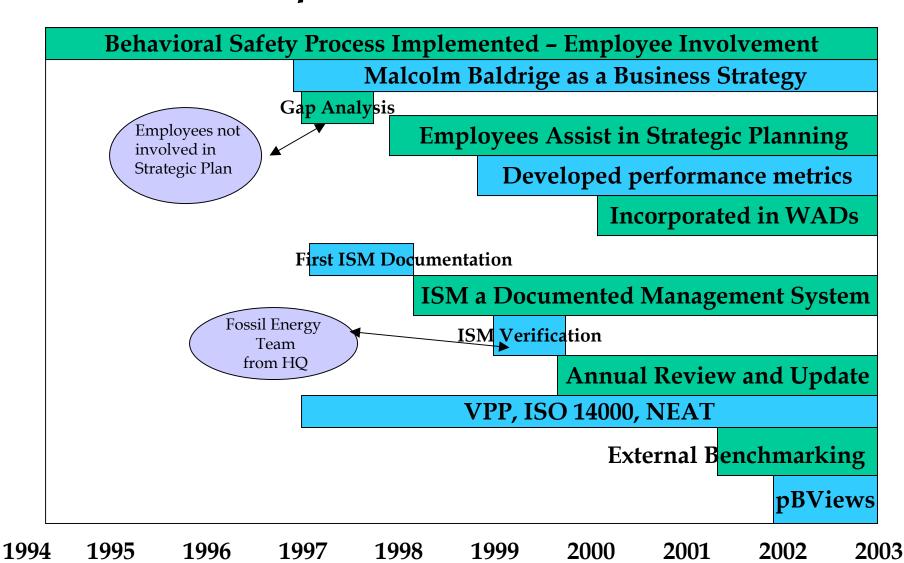
SPR Business Strategies

Improve productivity safely by using:



- Best at the SPR
- Best in DOE
- Best in commercial business
- Benchmarking, benchmarking, benchmarking
- Internal recognition
- External recognition programs

The SPR Adopts Commercial Business Tools



Adopting Proven Commercial Business Strategies – Innovate or Stagnate

- Gap Analysis
- Benchmark
- Plan
- Prepare for Change
- Implement
- Performance Metrics
- Benchmark again



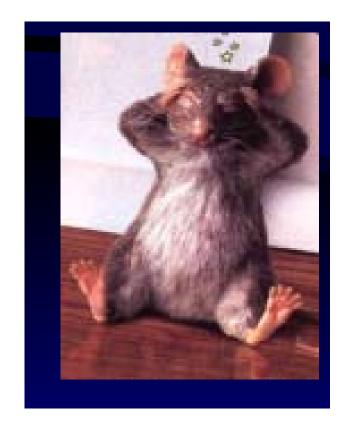
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Behavioral Safety

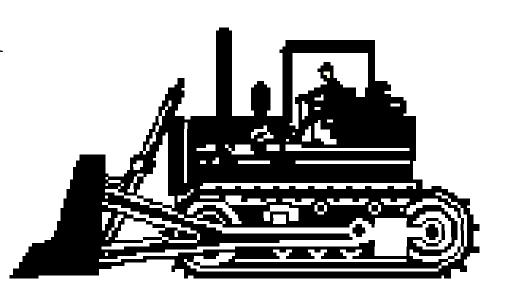
- The first step in employee involvement
- Is Not:





Behavioral Safety Is....

- Employee owned
- Data driven
- Proactive
- Positive, sure, fast
- Immediate near-miss intervention
- Anonymous



SPR Behavioral Safety

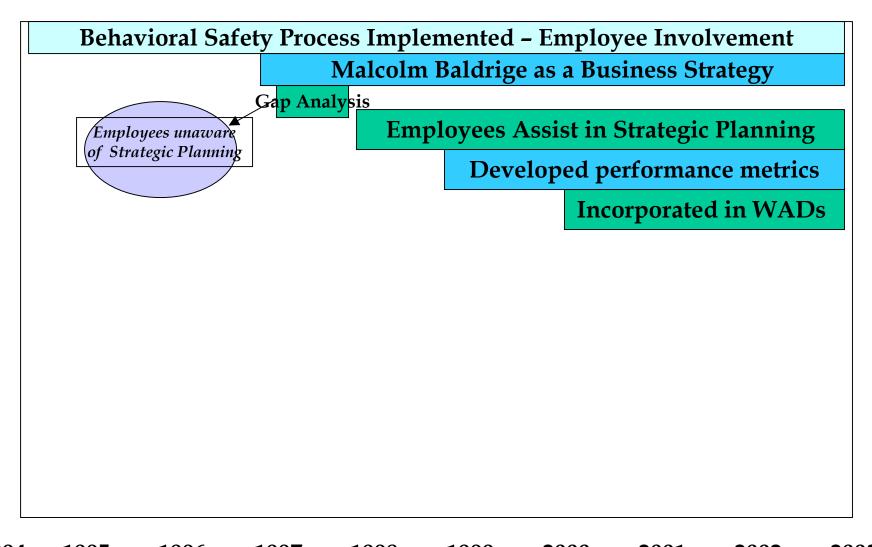
- Researched and wrote proposal including necessary resources
- Implemented, all sites
- Process 8 years old
- Two sites 100% trained; lowest TRCs
- 2001 7,361 observations (19% more than 2000)
 - 45,678 safe behaviors (10% more than 2000
 - 2,595 "at risk" behaviors (12% less than 2

Productivity Improvements

- Predictive performance measures
- Cost avoidance
 - Fewer accidents
 - Best way to do the job
 - Mentoring
- Employees actively part of process



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1994 1995 1996 1997 1998 1999 2000 2001 2002 2003

Malcolm Baldrige Asks, "What Are You Doing?" Malcolm Baldrige Malcolm Baldrige

- how the organization is led?
- how information is gathered and used?
- how people's talents are developed and harnessed?
- how the organization determines what its customers need?
- how the flow of work is organized?
- how the organization is performing?

Baldrige Categories

- Leadership (1)
- Strategic Planning (2)
- Market Focus (3)
- Information and Analysis (4)
- Human Resource focus (5)
- Process Management (6)
- Organizational Performance Results (7)



Strategic planning ... Ensures that we're all walking on the same path....

"All men can see the tactics whereby I conquer, but what none can see is the strategy out of which great victory is evolved."

Attributed to Sun-tzu, a Chinese military strategist of about 3,000 years ago

Baldrige Process on the SPR

- DOE accepted as a business strategy
- Gap analysis people not involved in Strategic Planning
- Made copies of the Strategic Plan accessible
- Involved employees in strategic planning
- Flowed down through contract
- Performance Metrics
- Work Authorization Directives
- Contractor adopted as business strategy



DOE Strategic Plan

- Objective CM 1

SPR Strategic Plan

- Values
- Success Factors
- Objectives

Annual Performance Plan

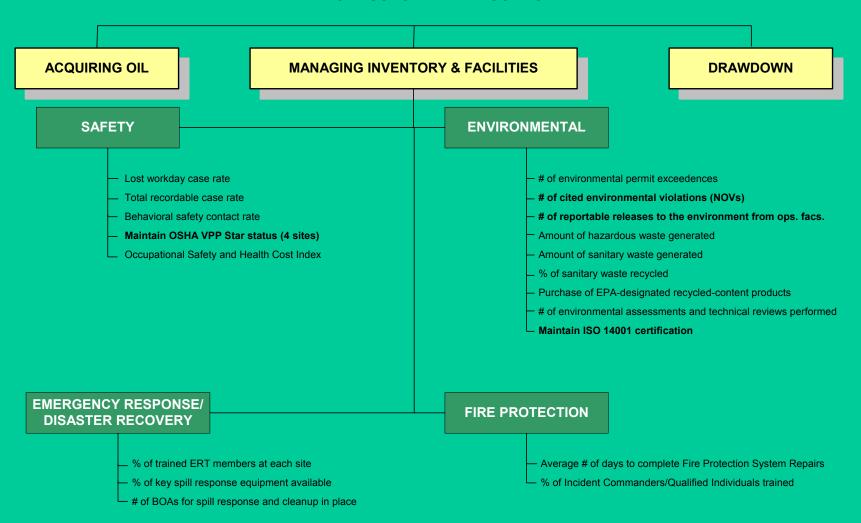
- Indicators/Measures

Key Processes

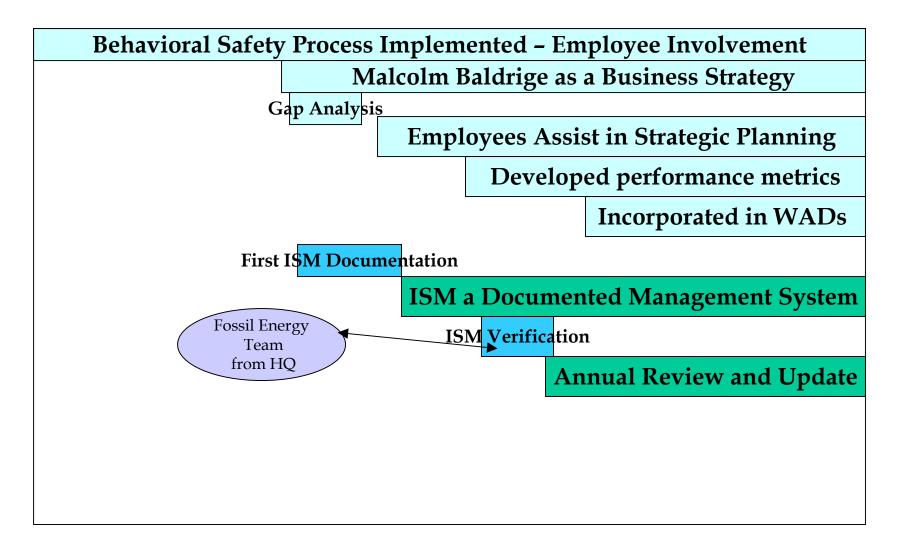
- Work Authorization Directives



KEY PROCESSES AND MEASURES



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1994 1995 1996 1997 1998 1999 2000 2001 2002 2003

Integrated Safety Management



- Order published
- Initial documents written
- Completed documentation
- FE verification systems audit
- Formal review and update process
- Quantitative data





Integrated Safety Management

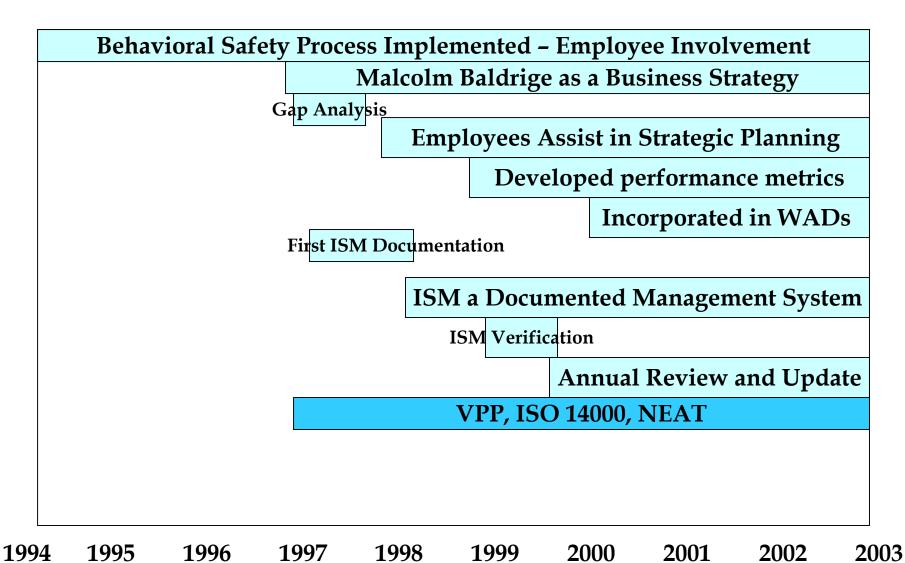
- Included Environment, Safety, Health, and Emergency Response
- Document Matrix Where is it? Who does it?
- Annual Review and Update Report
 - Qualitative & Quantitative data
- Perfect preparation for:
 - VPP
 - ISO's
 - NEAT



Productivity Improvements

- Cost avoidance
 - Fewer accidents
 - Less chance for error
 - Optimum work planning
- Integrated multiple requirements
- Improved organization at the system level

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Benchmarking with External Standards

- Recognized top performers
 - ISO 14001
 - OSHA and DOE VPP
 - ISO 9001





ISM + Behavioral + DOE Quality = a sound base





Voluntary Protection Program

- Four storage sites accepted as Stars
 - OSHA
 - DOE
- Annual self-evaluations
- Periodic re-appraisal by OSHA
- Region VI Star among Stars

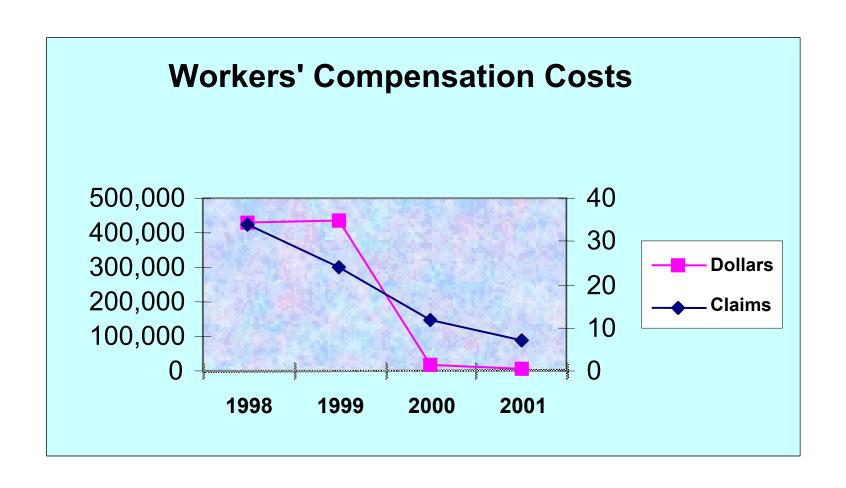


Indirect Savings



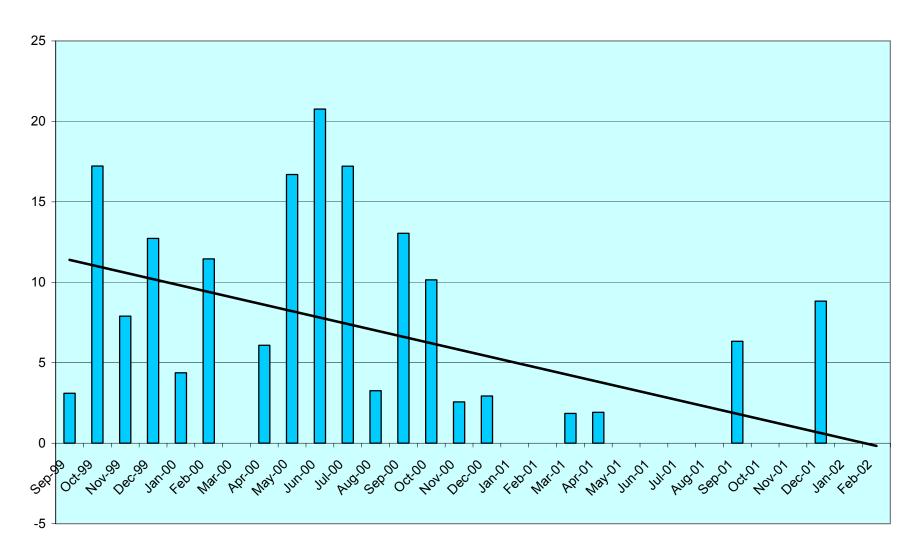
Site	Total Recordable Case Rate (TRC) 2000	Total Recordable Case Rate (TRC) 2001	Percentage Reduced
Bayou Choctaw	4.69	1.66	65%
Big Hill	2.03	0.00	100%
Bryan Mound	2.16	1.12	48%
West Hackberry	2.65	2.18	18%

Direct Savings

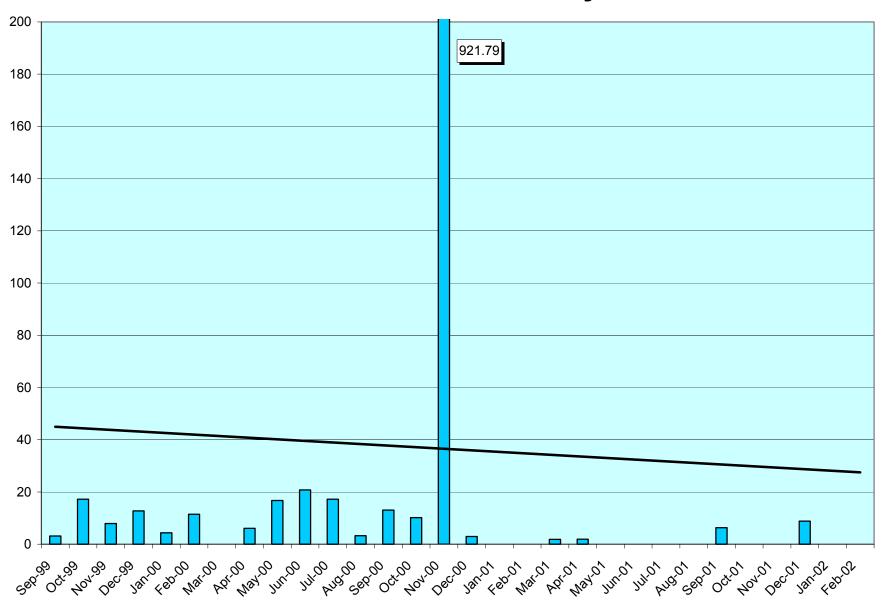


Occupational Safety and Health Cost Index

(in dollars per 100 hours worked)

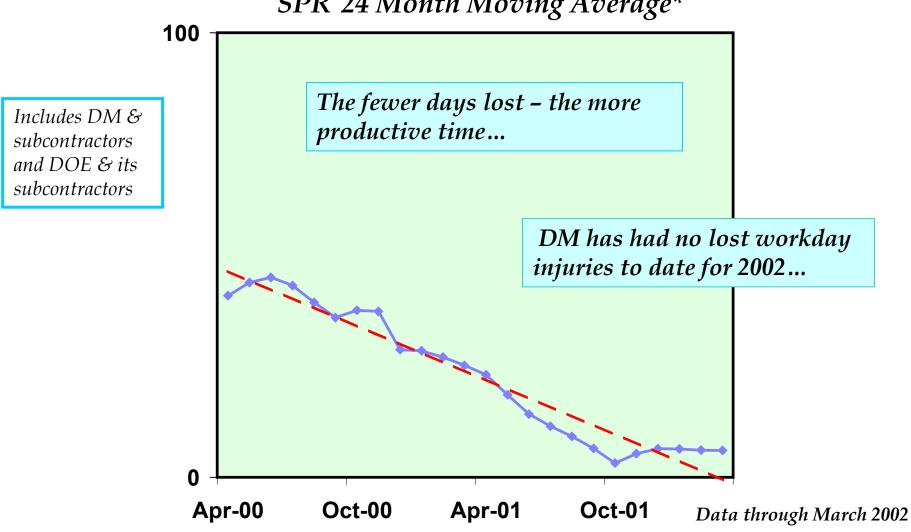


OSH Cost Index by Month, including 2000 Traffic Fatality



Lost Workday Rate

SPR 24 Month Moving Average*



The Future of Safety and Health

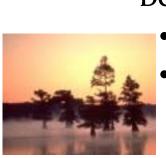
- Goals
 - ISM Compliance
 - Maintain VPP status four Stars of Excellence
 - Zero Accidents
 - Continued improvement and enthusiasm
 - Mature Industrial Hygiene Program

ISO 14001

- International standard best environmental management systems
- Implementation complete December '99
- Certified May, 2000
- Reappraised every six months
- Successfully completed fifth appraisal in April

Contributions to Productivity

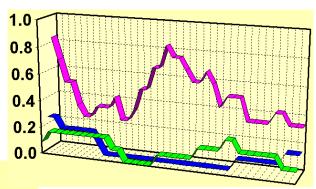
- Cost avoidance
 - Fewer spills, mean reduced cleanup
 - Money
 - Time
 - Personnel
 - Environmental damage
 - Excellent recycling and waste management
 - Best management practices
 - Avoidance of fines and citations
 - Preservation of wildlife

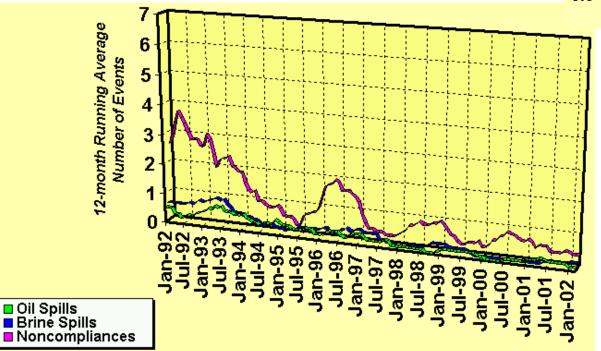




1992-2002 Spills and Noncompliances

Spills and Noncompliances remain low as fill continues...

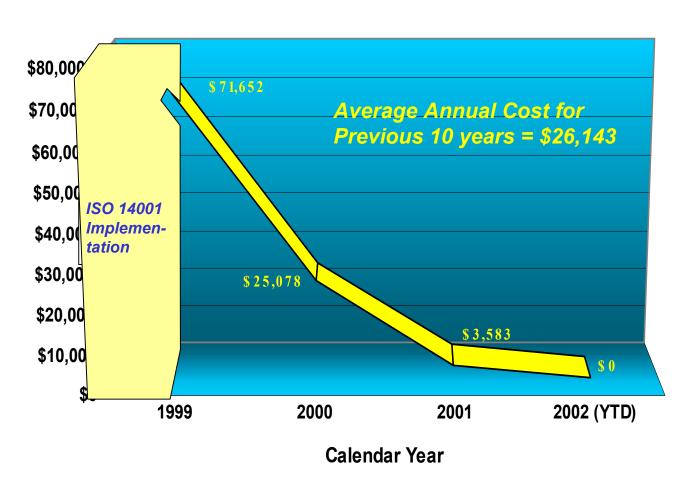




For an estimated cost avoidance of \$68,000 a year in clean-up costs

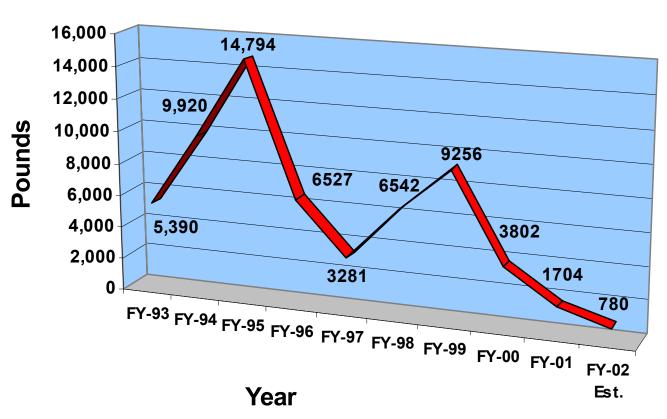
Environmental Related Cost Avoidance

Oil Spill Cleanup Costs



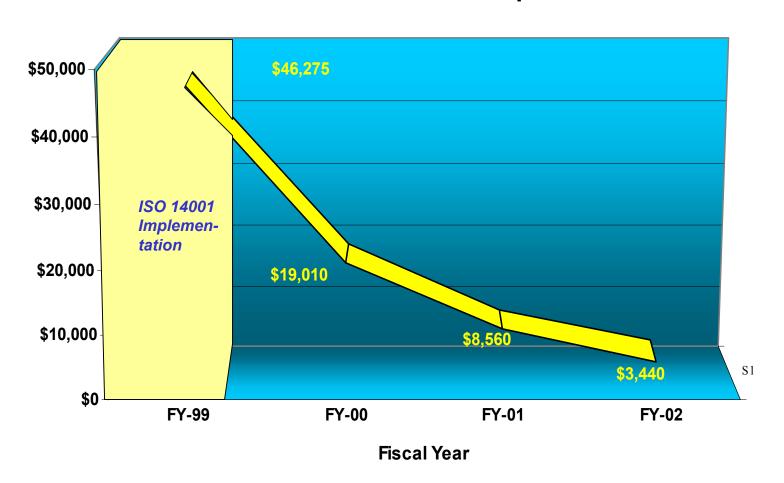
Continued Waste Reduction

Hazardous Waste Generation Trend



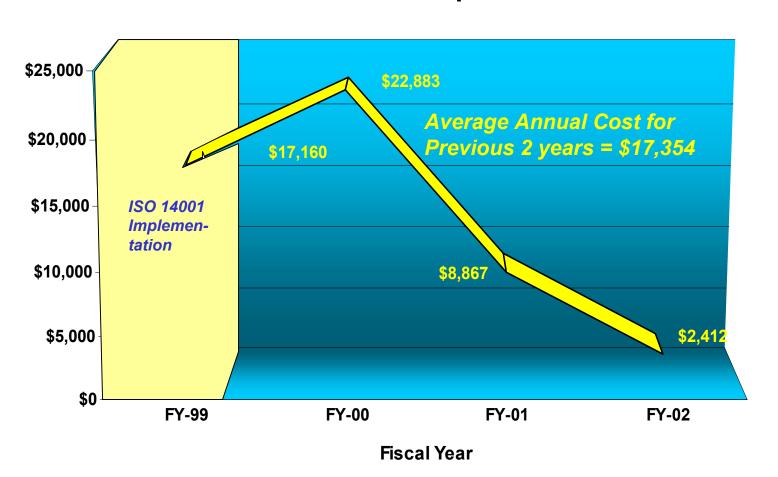
EMS Related Cost Avoidance

Generated Hazardous Waste Disposal Costs



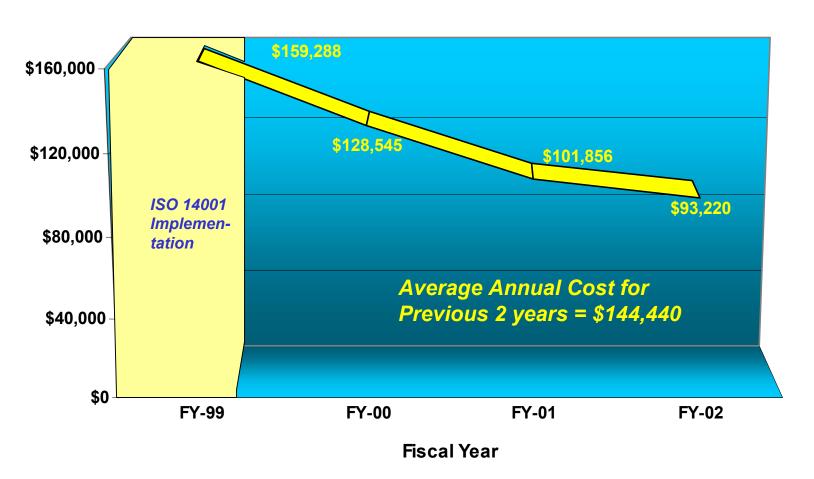
EMS Related Cost Savings

Hazardous Waste Expenditures



EMS Related Cost Savings

Sanitary Waste Expenditures



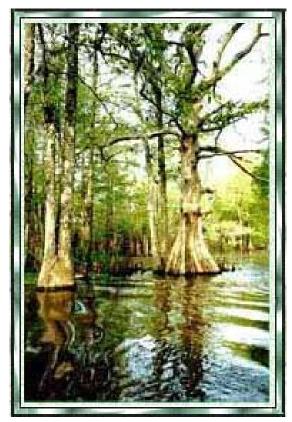
The Future of Environmental

Continue to Achieve P2 Goals

By 2005

- Plan to meet goals through 2010
- Hazardous Waste generation falls to 539 lbs.
- Continue Environmental Management **Systems Certification**
 - Continue certification for ISO 14001 and National Environmental Performance Track that have been in place since FY 2000

Well worth preserving...











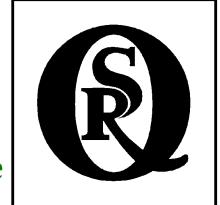
ISO 9001

- **ISO 9001** Model for a process based Quality Management System
- 1994 version of the International Standard
- Began process November of 1999
- Audited by the registrar January 2001
- Received ISO certification February 2001
- Audited annually by registrar January 2002

ISO 9001 Productivity Benefits



- A guideline for a quality management system - better products, better methods, quality "built in"
- Clearly identifies the organization's interaction of processes meet customer requirements better
- Measure the effectiveness of processes
 - show stability, identify weaknesses
- Continual improvement built in provide customer satisfaction



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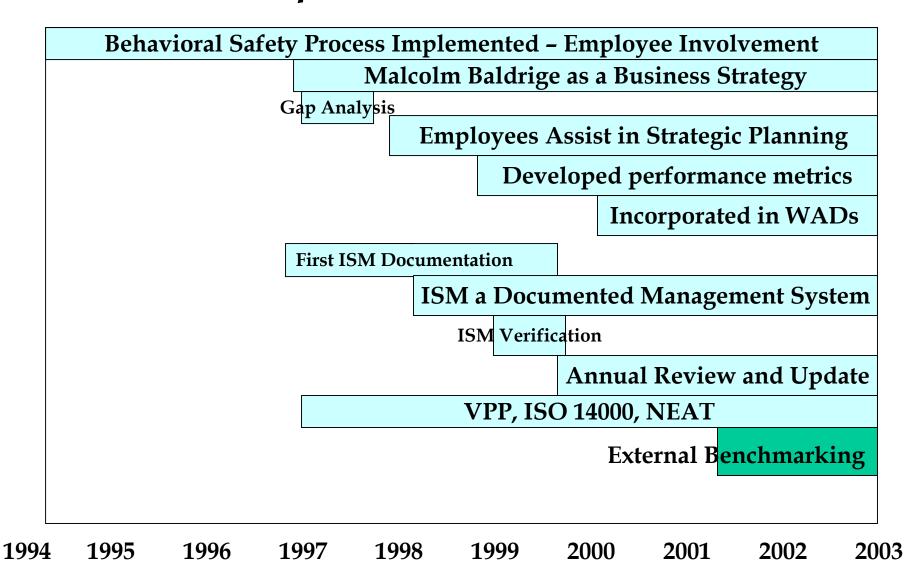
The Future of Quality

• New ISO 9001 2000 version of the standard approved in December of 2000.

Benchmarking Report

- DM to convert to the new version by September of 2002. **Fifteen months ahead of requirement.**
- Computer Based Training developed for the conversion training for all employees.

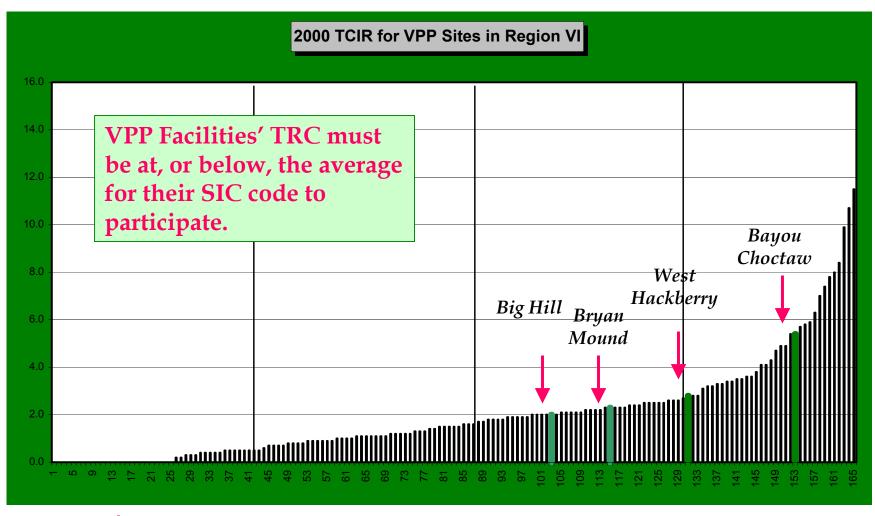
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Benchmarking

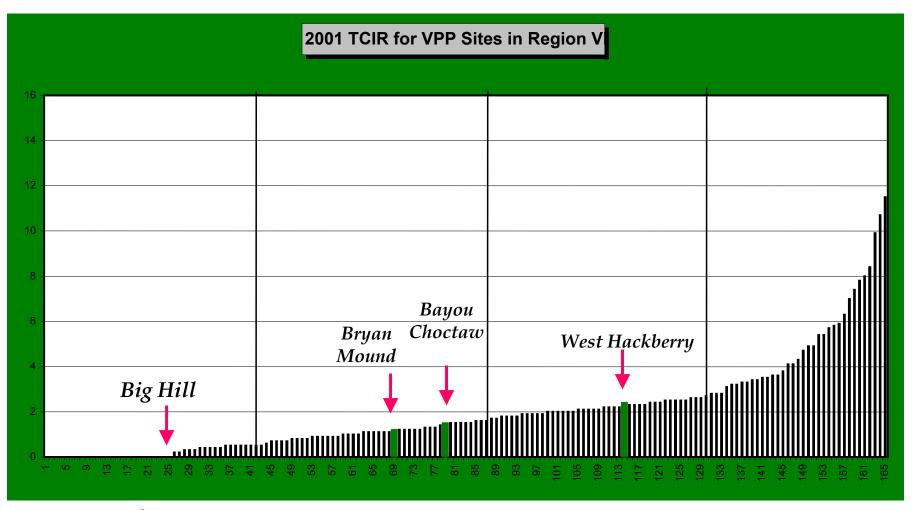
- Within DOE
 - DOE VPP and ISO sites
- With Commercial Business
 - Benchmarking TRC against proven leaders in S&H
- Within VPP
 - Benchmarking TRC against 171 other Region VI sites

DM Total Recordable Case Rate for 2000 against 171 Region VI VPP Facilities



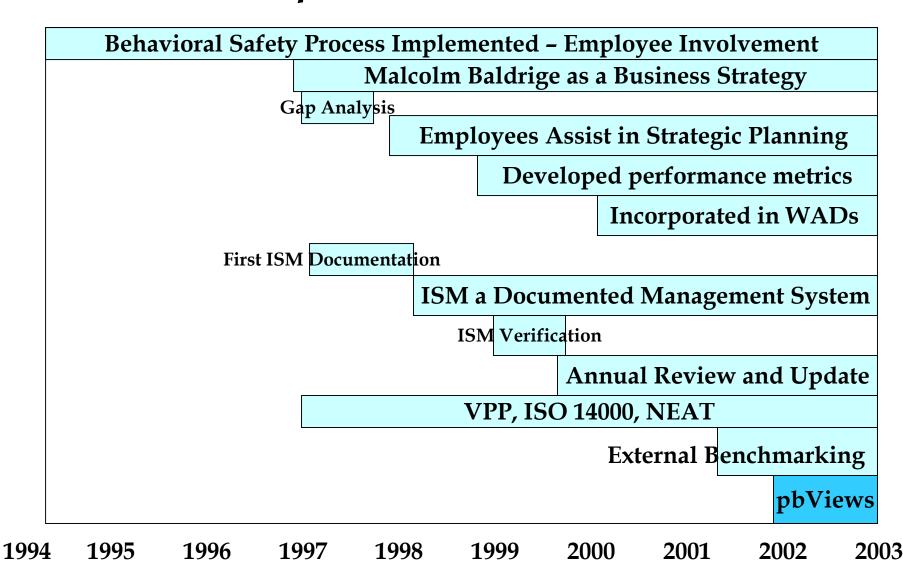


Total Recordable Case Rate for 171 VPP Sites DM 2001 Data against 2000 OSHA Data



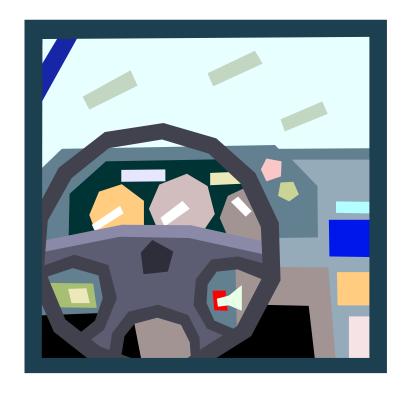


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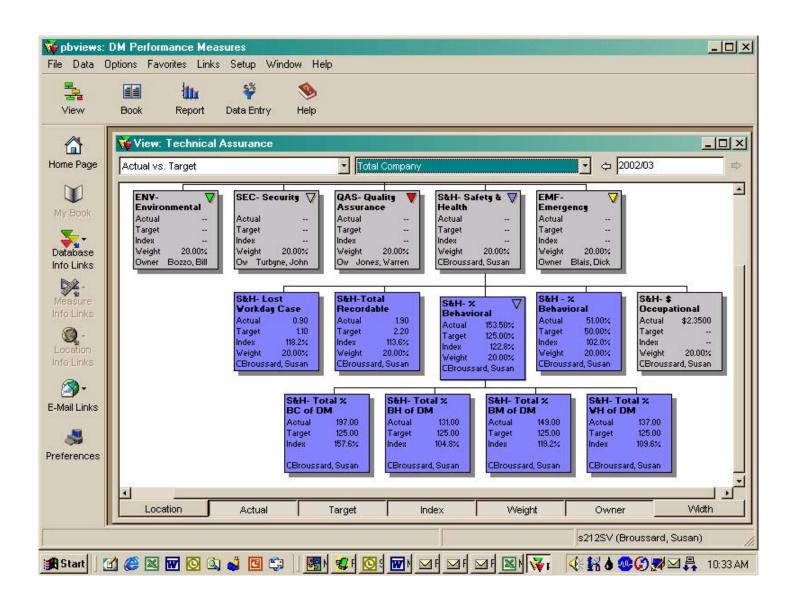
pbViews

- Used to keep track of performance metrics important to the project
- Dashboard to details
- Predictive data
- Early intervention
- Garbage in, garbage out!
- Allows adjustment of performance metrics as needed



pbViews Screen

Drill down to S&H performance Measures





ES&H AWARDS 1996-2002

- Fossil Energy ES&H Achievement Award for Behavioral Safety
- DOE Pollution Prevention Award for Tank Sludge Re-Use
- Louisiana Governor's Award for Outstanding Achievements in Pollution Prevention for Emission Reductions
- DOE Fossil Energy ES&H
 Achievement Award for Tank
 Cleaning Innovation
- Louisiana Governor's Environmental Leadership Award for mentoring contractors on waste minimization and recycling
- Texas General Land Office (TGLO)
 OSPRA Big Hill

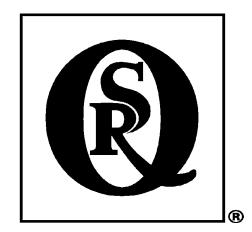
- DOE Fossil Energy ES&H
 Achievement Award for brine pond replacement
- TGLO OSPRA Award Big Hill
- Big Hill OSHA VPP Merit Certification
- West Hackberry OSHA VPP STAR Certification
- ISO-14001 Certification: Big Hill, Bayou Choctaw, Bryan Mound, New Orleans, and West Hackberry
- TGLO OSPRA Award Big Hill
- White House Closing the Circle Certificate of Achievement for model facility integrated Pollution Prevention

ES&H AWARDS 1996-2002 (cont'd)

- OSHA VPP Star Certification Big Hill, Bayou Choctaw, and Bryan Mound
- EPA National Environmental Achievement Track Award (NEAT)
- FE ES&H Achievement Award for VPP
- VPP Contractor Champions Award
- DOE Pollution Prevention Award Runner-up for SPR vehicle replacement pilot program
- ISO 9001 Certification: Bryan Mound, Bayou Choctaw, West Hackberry, New Orleans, and Big Hill
- TGLO OSPRA Award Bryan Mound

- Big Hill National Safety Council's "Perfect Record" Award for no lost time accidents
- Bryan Mound National Safety
 Council's "Perfect Record" Award
- Certificate of Recognition to SPR for Participation in the Environmental Protection Agency Environmental Management Review Program
- New Orleans Site National Safety Council 2002 Industry Leader Award
- 2002 DOE Pollution Prevention
 Award for Waste/P2 Nominated
 for the White House "Closing the
 Circle Award" for Pollution
 Prevention





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